

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	10/606,087	BENVENISTE ET AL.
	Examiner	Art Unit
	Mohammed Hasan	2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to \_\_\_\_\_.
  2.  The allowed claim(s) is/are 1 - 15.
  3.  The drawings filed on 25 June 2003 are accepted by the Examiner.
  4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some\*    c)  None    of the:
      1.  Certified copies of the priority documents have been received.
      2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    - (a)  The translation of the foreign language provisional application has been received.
  6.  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**
7.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  8.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1)  hereto or 2)  to Paper No. \_\_\_\_\_.
    - (b)  including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
    - (c)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).
9.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                      | <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                             | <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No.3 .     |
| <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No. 2 | <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material       | <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|   | <input type="checkbox"/> Other  |

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas G. Eschweiler on January 7, 2004.

Cancel the claims 16 – 25. ✓

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1 – 15 are drawn to an ion implantation system, classified in class 250, subclass 396 ML.
  - II. Claims 16 – 25, drawn to a method of mass analyzing a ribbon shaped ion beam, classified in class 438, subclass 515.
3. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case shallow implants with a relatively high dopant concentration.

4. During a telephone conversation with Thomas G. Eschweiler on January 5 , 2004, a provisional election was made without traverse to prosecute the invention of ion beam apparatus , claims 1- 15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16 – 25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Oath/Declaration***

6. Oath and declaration filed on 6/25/2003 is accepted.

***Information Disclosure Statement***

7. The prior art documents submitted by applicant in the Information Disclosure Statement filed on July 28, 2003 have all been considered and made of record (note the attached copy of form PTO – 1449).

***Allowable Subject Matter***

8. Claims 1 – 15 are allowed.
9. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 1 and 10, for example which include a mass analysis system operable to receive the ribbon ion beam at an entrance end and deflect ions with the ribbon beam having charge – to – mass ratio in exit end and the mass analysis system having a field clamp located at one of the entrance end and exit

end, the field clamp operable to substantially terminate a fringing field associated, thereby reducing a distortion of the ribbon beam (claim 1); and a field clamp to one of the entrance end and the exit end of the coils and operable to substantially terminate fringing fields emanating from one of the entrance end and the exit end of the coils (claim 10).

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

Renau (6,635,880 B1) discloses an ion beam apparatus includes an ion source, a first magnet assembly, a structure defining a resolving aperture and a second magnet assembly.

### ***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (703) 306-0089. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (703) 308-4883. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**Scott J. Sugarman**  
**Primary Examiner**